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Julie K Lyons  
Signature

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Art Unit : 1645  
Examiner : S. Turner  
Applicant(s) : ME Gurney, AM Pauley and J Li  
Serial No. : 09/213,888  
Filed : 17 December 1998  
For : Human Sel-10 Polypeptides and Polynucleotides that Encode Them

Commissioner of Patents and Trademarks  
Washington, DC 20231

**INFORMATION DISCLOSURE STATEMENT TRANSMITTAL  
UNDER 37 CFR 1.97 AND 1.98**

Sir:

**Information Disclosed.** The information disclosed consists of the following:

☒ **Form PL-1449.** Provided herewith are copies of patent(s) and/or publication(s) as listed in the attached form PL-1449.

☐ At least to the extent required under §1.98(a)(3), a concise explanation of the relevance of references listed in form PL-1449 is:

- ☐ contained in the above-captioned specification as filed;
- ☐ provided in a communication enclosed with this paper;
- ☐ provided in the International Search Report enclosed with this paper; and/or
- ☐ not necessary as all of the references cited are in the English language.

- ☐ **Disclosure from Predecessor Application.** Provided herewith is a copy (or the copy is already present in the present file wrapper in accordance with §1.53(d)) of one or more forms PL-1449 and/or search/examination reports of record in this or a predecessor application, Serial No. filed , the benefit of which is claimed under 35 USC 120. Copies of references are present in the prosecution history of the referenced application and are not supplied herewith pursuant to §1.98(d).

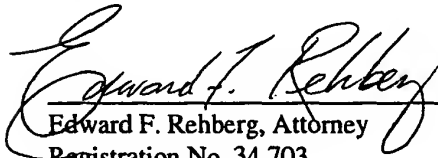
**Basis for Consideration.** This information disclosure statement is entitled to consideration by the Office under:

- ☐ **§1.97(b)**, as being filed within three months of the filing date of the above-captioned application and/or the date of entry of the National Stage, if later, and/or before the mailing date of the first Office action on the merits. Applicant(s) is/are unaware that any office action has issued in this case. However, in the event a first office action has issued, prior to the mailing of this document, then authorization is given to charge the late fee to the deposit account identified below.
- ☒ **§1.97(c)**, as being filed after the period specified in §1.97(b), but before the mailing date of a final action under §1.113 and/or the notice of allowance under §1.311. Consideration of this information disclosure statement at this time is requested for the reason checked below:
- ☒ **Authorization is hereby provided to charge Deposit Account No. 21-0718 the fee set forth in §1.17(p), \$240.00, or such greater or lesser amount as the Commissioner may from time to time prescribe by rule. Triplicate copies of this paper are provided to facilitate the charge to the Deposit Account.**
- ☐ A statement as specified in 37 CFR 1.97(e) below.
- ☐ **§1.97(d)**, as being filed after the period specified in §1.97(c), but on or before payment of the issue fee and is accompanied by:
- ☐ **Authorization to charge Deposit Account No. 21-0718 the fee set forth in §1.17(i), \$130.00, or such greater or lesser amount as the Commissioner may from time to time prescribe by rule. Triplicate copies of this paper are provided to facilitate the charge to the Deposit Account.**
- ☐ A petition requesting consideration of the information disclosure statement; and
- ☐ A statement as specified in 37 CFR 1.97 (e) below.
- ☐ **§1.97(e)**, this is a **supplemental information disclosure statement**. A prior information disclosure statement has already been filed. Applicant certifies, as provided in 37 CFR 1.97 (e), that

- ☐ Each new item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three (3) months prior to the filing of this statement.
- ☐ No item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application and, to the knowledge of the person signing below, after making reasonable inquiry, was known to any individual designated in §1.56(c) more than three (3) months prior to the filing of this statement.

**Disclaimer.** In accordance with §1.97(g) and (h), the filing of this information disclosure statement is not to be construed as an admission that the information cited in the statement is, or is considered to be, material to patentability as defined in §1.56, and is not to be construed as a representation that a search has been made.

Respectfully submitted,

  
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**Attachment(s)**

- ☒ Form 1449 with copies of reference(s)  
☐ Form 1449 from predecessor application (no references)  
☐ Communication providing concise explanation of relevance  
☒ International Search Report

<b>LIST OF REFERENCES CITED BY APPLICANT</b> <i>(Use several sheets if necessary)</i>				Atty. Docket No. 6142.N CP		Serial No. 09/213,888		
				Applicant      Adele M. Pauley, Mark E. Gurney, Jinhe Li				
				Filing Date      19 Dec., 1997		Group      1641		
<b>U.S. PATENT DOCUMENTS</b>								
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
	AA							
	AB							
	AC							
	AD							
<b>FOREIGN PATENT DOCUMENTS</b>								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AE	WO 97/11956	3 April 1997	World	C07H	21/04	X	
	AF							
	AG							
<b>OTHER PRIOR ART</b> <i>(Including Author, Title, Date, Pertinent Pages, Etc.)</i>								
	AH	F55B12.3 GenPep Report (WMBL locus CEF55B12, accession z79757) <b>Sept. 1996</b>						
	AI	D.R. Borchelt, G. Thinakaran, C.B. Eckman, M.K. Lee, F. Davenport, T. Ratovitsky, C.-M. Prada, G. Kim, S. Seekins, D. Yager, H.H. Slunt, R. Wang, M. M. Seeger, A.I. Levey, S.E. Gandy, N.G. Copeland, N.A. Jenkins, D.L. Price, S.G. Younkin, S.S. Sisodia, <i>"Familial Alzheimer's Disease-Linked Presenilin 1 Variants Elevate A<math>\beta</math>1-42/1-40 Ratio In Vitro and In Vivo,"</i> Neuron, 1996, 17:1005-1013						
	AJ	D.R. Borchelt, T. Ratovitski, J. van Lare, M.K. Lee, V. Gonzales, N.A. Jenkins, N.G. Copeland, D.L. Price, S.S. Sisodia, <i>"Accelerated Amyloid Deposition in the Brains of Transgenic Mice Coexpressing Mutant Presenilin 1 and Amyloid Precursor Proteins,"</i> Neuron, 1997, 19:939-945						
	AK	M. Citron, D. Westaway, W. Xia, G. Carlson, T. Diehl, G. Levesque, K. Johnson-Wood, M. Lee, P. Seubert, A. Davis, D. Kholodenko, R. Motter, R. Sherrington, I. B. Perry, H. Yao, R. Strome, I. Lieberburg, J. Rommens, S. Kim, D. Schenk, P. Fraser, P. St George Hyslop, D.J. Selkoe, <i>"Mutant presenilins of Alzheimer's disease increase production of 42-residue amyloid <math>\beta</math>-protein in both transfected cells and transgenic mice,"</i> Nat. Med., 1997, 3:67-72						
	AL	A. Doan, G. Thinakaran, D.R. Borchelt, H.H. Slunt, T. Ratovitsky, M. Podlisny, D.J. Selkoe, M. Seeger, S.E. Gandy, D.L. Price, S.S. Sisodia, <i>"Protein Topology of Presenilin 1,"</i> Neuron, 1996, 17:1023-1030						
	AM	K. Duff, C. Eckman, C. Zehr, X. Yu, C.-M. Prada, J. Perez-Tur, M. Hutton, L. Buee, Y. Harigaya, D. Yager, D. Morgan, M.N. Gordon, L. Holcomb, L. Refolo, B. Zenk, J. Hardy, S. Younkin, <i>"Increased amyloid-<math>\beta</math>42(43) in brains of mice expressing mutant presenilin 1,"</i> Nature, 1996, 383:710-713						
	AN	I. Greenwald, G. Seydoux, <i>"Analysis of gain-of-function mutations of the lin-12 gene of Caenorhabditis elegans,"</i> Nature, 1990, 346: 197-9						
	AO	M. Hochstrasser, <i>"Ubiquitin-dependent protein degradation,"</i> Annual Review of Genetics, 1996, 30:405-439						

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		Applicant	Adele M. Pauley, Mark E. Gurney, Jinhe Li
		Filing Date	19 Dec., 1997
		Group	1641
AP	E.J.A. Hubbard, G. Wu, J. Kitajewski, I. Greenwald, "sel-10, a negative regulator of lin-12 activity in <i>Caenorhabditis elegans</i> , encodes a member of the CDC4 family of proteins," <i>Genes &amp; Development</i> , 1997, 11: 3182-3193		
AQ	T.W. Kim, W.H. Pettingell, O.G. Hallmark, R.D. Moir, W. Wasco, R.E. Tanzi, "Endoproteolytic Cleavage and Proteasomal Degradation of Presenilin 2 in Transfected Cells," <i>Journal of Biological Chemistry</i> , 1997, 272: 11006-11010		
AR	D.M. Kovacs, H.J. Fausett, K.J. Page, T.-W. Kim, R.D. Moir, D.E. Merriam, R.D. Hollister, O.G. Hallmark, R. Mancini, K.M. Felsenstein, B.T. Hyman, R.E. Tanzi, W. Wasco, "Alzheimer-associated presenilins 1 and 2: Neronal expression in brain and localization to intracellular membranes in mammalian cells," <i>Nat. Med.</i> , 1996, 2:224-229		
AS	D. Levitan, T.G. Doyle, D. Brousseau, M.K. Lee, G. Thinakaran, H.H. Slunt, S.S. Sisodia, I. Greenwald, "Assessment of normal and mutant human presenilin function in <i>Caenorhabditis elegans</i> ," <i>Proc. Natl. Acad. Sci. USA</i> , 1996, 93: 14940-4		
AT	D. Levitan, I. Greenwald, "Facilitation of lin-12-mediated signalling by sel-12, a <i>Caenorhabditis elegans</i> S182 Alzheimer's disease gene," <i>Nature</i> , 1995, 377: 351-4		
AU	E. Levy-Lahad, W. Wasco, P. Poorkaj, D.M. Romano, J. Oshima, W.H. Pettingell, C.-E. Yu, P.D. Jondro, S.D. Schmidt, K. Wang, A.C. Crowley, Y.-H. Fu, S.Y. Guenette, D. Galas, E. Nemens, E.M. Wijsman, T.D. Bird, G.D. Schellenberg, R.E. Tanzi, "Candidate Gene for the Chromosome 1 Familial Alzheimer's Disease Locus," <i>Science</i> , 1995, 269: 973-977		
AV	J. Li, J. Ma, H. Potter, "Identification and expression analysis of a potential familial Alzheimer disease gene on chromosome 1 related to AD3," <i>Proc. Natl. Acad. Sci. U.S.A.</i> , 1995, 92:12180-12184		
AW	M. Mercken, H. Takahashi, T. Honda, Z. Sato, M. Murayama, Y. Nakazato, K. Noguchi, K. Imahori, A. Takashima, "Characterization of human presenilin 1 using N-terminal specific monoclonal antibodies: Evidence that Alzheimer mutations affect proteolytic processing," <i>FEBS Lett.</i> , 1996, 389:297-303		
AX	M. Mullan, F. Crawford, K. Axelman, H. Houlden, L. Lilius, B. Winblad, L. Lannfelt, "A pathogenic mutation for probable Alzheimer's disease in the APP gene at the N-terminus of $\beta$ -amyloid," <i>Nat Genet</i> , 1992 Aug, 1(5):345-7		
AY	J. Perez-Tur, S. Froelich, G. Prihar, R. Crook, M. Baker, K. Duff, M. Wragg, F. Busfield, C. Lendon, R.F. Clark, P. Roques, R.A. Fuldner, J. Johnston, R. Cowburn, C. Forsell, K. Axelman, L. Lilius, H. Houlden, E. Karran, G.W. Roberts, M. Rossor, M.D. Adams, J. Hardy, A. Goate, L. Lannfelt, M. Hutton, "A Mutation in Alzheimer's disease destroying a splice acceptor site in the presenilin-1 gene," <i>Neuroreport</i> , 1995, 7:297-301		
AZ	E.I. Rogaev, R. Sherrington, E.A. Rogaeva, G. Levesque, M. Ikeda, Y. Liang, H. Chi, C. Lin, K. Holman, T. Tsuda, L. Mar, S. Sorbi, B. Nacmais, S. Piacentini, L. Amaducci, I. Chumakov, D. Cohen, L. Lannfelt, P.E. Fraser, J.M. Rommens, P.H. St George-Hyslop, "Familial Alzheimer's disease in kindreds with missense mutations in a gene on chromosome 1 related to the Alzheimer's disease type 3 gene," <i>Nature</i> , 1995, 376: 775-778		
BB	D. Scheuner, C. Eckman, M. Jensen, X. Song, M. Citron, N. Suzukik, T.D. Bird, J. Hardy, M. Hutton, W. Kukull, E. Larson, E. Levy-Lahad, M. Viitanen, E. Peskind, P. Poorkaj, G. Schellenberg, R. Tanzi, W. Wasco, L. Lannfelt, D. Selkoe, S. Younkin, "Secreted amyloid $\beta$ -protein similar to that in the senile plaques of Alzheimer's disease is increased in vivo by the presenilin 1 and 2 and APP mutations linked to familial Alzheimer's disease," <i>Nat. Med.</i> , 1996, 2:864-870		

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	BC	R. Sherrington, E.I. Rogaev, Y. Liang, E.A. Rogaeva, G. Levesque, M. Ikeda, H. Chi, C. Lin, G. Li, K. Holman, T. Tsuda, L. Mar, J.-F. Foncin, A.C. Bruni, M.P. Montesi, S. Sorbi, I. Rainero, L. Pinessi, L. Nee, I. Chumakov, D. Pollen, A. Brookes, P. Sanseau, R.J. Polinsky, W. Wasco, H.A.R. Da Silva, J.L. Haines, M.A. Pericak-Vance, R.E. Tanzi, A.D. Roses, P.E. Fraser, J.M. Rommens, P.H. St George-Hyslop, <i>"Cloning of a gene bearing missense mutations in early-onset familial Alzheimer's disease,"</i> Nature, 1995, 375: 754-760	
	BD	M. Sundaram, I. Greenwald, <i>"Genetic and Phenotypic Studies of Hypomorphic lin-12 Mutants in Caenorhabditis elegans,"</i> Genetics, 1993, 135: 755-763	
	BE	M. Sundaram, I. Greenwald, <i>"Suppressors of a lin-12 Hypomorph Define Genes That Interact With Both lin-12 and glp-1 in Caenorhabditis elegans,"</i> Genetics, 1993, 135: 765-83	
Examiner		Date Considered	

<b>LIST OF REFERENCES CITED BY APPLICANT</b> <i>(Use several sheets if necessary)</i>				Atty. Docket No. 6142.N CP		Serial No. 09/213, 888	
				Applicant      ME Gurney, et. al.			
				Filing Date      6/19/1999		Group    1647	
U.S. PATENT DOCUMENTS							
Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
						Yes	No
	AJ						
	AK						
	AL						
	AM						
	AN						
OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)							
	AO	Choh, PNAS 77(6): 3211-14, 1980					
	AP	Jenkins, PCR Methods and Appl., S77-82, 1994					
	AQ	Crooke, Antisense & Nucl. Acid Drug Dev., 8:115-22, 1998					
	AR	Genbank Accession No. AA625610; October 15, 1997					
	AS	Genbank H22962 July 6, 1995					
	AT	Genbank H34371 July 19, 1995					
	AU	Sambrook et al., Cold Spring Harbor Labs, 17-1-17.44, 1989					
	AV	Skolnick et al., Trends in Biotech., 18(1):34-39, 2000					
	AW	Yochem et al., J. Mol. Biol., 195:233-45					

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	<b>Filing Date</b> 6/19/1999	<b>Group</b> 1647
<b>Examiner</b>	<b>Date Considered</b>	